



# SpectraTest Instrument Validation Packages

Comprehensive, industry-standard absorbance, fluorescence, and luminescence microplate reader validation

## KEY FEATURES

- Absorbance validation
- Fluorescence validation
- Luminescence validation
- Automated testing
- NIST traceability
- Recertification

Microplate readers from Molecular Devices are designed to provide consistent performance for many years. In keeping with best practices, instrument performance should still be validated and documented regularly. The SpectraTest® ABS1, FL1, and LM1 Validation Packages from Molecular Devices provide automated, comprehensive, and traceable validation of optical performance, plus automatic verification of SpectraMax®, FlexStation® 3, VersaMax™, and specified Gemini™ microplate readers.

## SpectraTest ABS1 Absorbance Validation Package performance tests

Qualify the absorbance performance of SpectraMax i3, i3x, M3, M4, M5, M5e, M2, M2e, Plus384, Plus, 190, 340PC, 340PC384, FlexStation 3, and VersaMax readers by testing the specifications that are absolutely critical to measurements. Eight different automated tests are provided:

- Absorbance accuracy (linearity)
- Precision (reproducibility)
- Stray light
- Wavelength accuracy
- Wavelength repeatability
- Ultimate dark (0% transmittance)
- Optical alignment
- Baseline noise





**Absorbance detector validation.** The SpectraTest ABS1 Absorbance Plate is used to validate optical performance of SpectraMax, FlexStation 3, and VersaMax microplate readers.



**Fluorescence detector validation.** The SpectraTest FL1 Fluorescence Plate is used to validate optical performance of SpectraMax i3, i3x, M3, M4, M5, M5e, M2, M2e, FlexStation 3, and Gemini XPS and EM microplate readers.



**Luminescence detector validation.** The SpectraTest LM1 Luminescence Plate is used to validate optical performance of SpectraMax i3, i3x, M3, M4, M5, M5e, L, and FlexStation 3 microplate readers.

#### Contact Us

Phone: [+1-800-635-5577](tel:+18006355577)  
 Web: [www.moleculardevices.com](http://www.moleculardevices.com)  
 Email: [info@moldev.com](mailto:info@moldev.com)

Check our website for a current listing of worldwide distributors

## SpectraTest FL1 Fluorescence Validation Package performance tests

Qualify the fluorescence performance of the SpectraMax i3, i3x, M3, M4, M5, M5e, M2, M2e, FlexStation 3, Gemini EM, and Gemini XPS readers by testing the specifications that are absolutely critical to measurements. Twelve different automated tests are provided:

- Fluorescence lower limit of detection (LLD)
- Excitation wavelength accuracy
- Emission wavelength accuracy
- Excitation wavelength precision
- Emission wavelength precision
- PMT matching (high vs. medium PMT settings)
- Top-to-bottom bias
- Kinetic noise (low signal)
- Kinetic noise (high signal)
- Well-to-well reproducibility
- Relative fluorescence unit (RFU) linearity
- RFU scale ratio

## SpectraTest LM1 luminescence Validation Package performance tests

Qualify the luminescence performance of the SpectraMax i3, i3x, M5, M5e, M4, M3, L, and FlexStation 3 readers by testing the specifications that are absolutely critical to measurements. Fifteen different automated tests are provided:

- Background noise
- Background spike
- Lower limit of detection
- Crosstalk
- Linearity
- Relative luminescence units (RLU)

- Kinetic noise (low signal)
- Kinetic spike (low signal)
- Kinetic drift (low signal)
- Kinetic noise (high signal)
- Kinetic spike (high signal)
- Kinetic drift (high signal)
- Well-to-well precision
- Left-to-right bias
- Top-to-bottom bias

## Automated for ease of use

All test measurements and calculations are handled automatically by the SoftMax® Pro Software protocols. Should any of the measurement parameters fall outside defined limits, a test failure is reported with the suspect parameters identified.

## NIST traceability of SpectraTest ABS1 Validation Plate

Each filter is individually tested across all eight channels of the plate. Calibration of the plate's filter standards is accomplished through the use of an instrument calibrated with primary NIST standards.

## Recertification service

To maintain confidence in the standards, Molecular Devices recommends having validation plates recertified at one-year intervals. Validation plates sent to Molecular Devices for recertification are disassembled, cleaned, calibrated, and then returned with a new certificate of calibration.

## Additional Validation Tools

In addition to the SpectraTest ABS1, FL1, and LM1 Validation Packages, IQ/OQ/PQ validation, SoftMax Pro Software validation, and FDA 21 CFR Part 11 compliance tools are available.

Ordering information		
Part number	Description	Details
0200-6117	SpectraTest ABS1 Absorbance Validation Package	All SpectraTest Validation Packages include: <ul style="list-style-type: none"> <li>• Validation plate</li> </ul>
0200-5060	SpectraTest FL1 Fluorescence Validation Package	<ul style="list-style-type: none"> <li>• Automated SoftMax Pro Software protocols to run validation tests</li> </ul>
0200-6186	SpectraTest LM1 Luminescence Validation Package	<ul style="list-style-type: none"> <li>• Certificate of calibration</li> <li>• User guide</li> </ul>